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**REMARKS**

Claims 29-70 are currently being canceled in lieu of new claims 71-111. New claims 71-111 are embodied in previous pending claims 29-37 and 39-70. Accordingly, the amendments presented herein do not introduce new matter within the meaning of 35 U.S.C. §132. As such, the Examiner is respectfully requested to enter these amendments.

**1. All Rejections in the Office Action having a Mailing Date of**

**August 7, 2009**

Claims 29-70 have been canceled rendering all previous rejections in the Office Action having a mailing date of August 7, 2009 moot. Notwithstanding, Applicant responds as follows to the previous rejections in the aforementioned Office Action.

All arguments outlined in Applicant's previous response of April 30, 2009 are incorporated herein by reference in their entirety.

First and foremost, with respect to the rejections outlined in the current Office Action, Applicant respectfully traverses the same based on the fact that the Examiner has failed to demonstrate in the current Office Action why, absent Applicant's specification, one would have selected the parts chosen from each of the seven (7) references used in the various combinations suggested by the

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Examiner in order to try and arrive at Applicant's currently claimed copolymer compositions and processes. Applicant is aware that arguing the number of references combined for a rejection under 35 U.S.C. §103(a) in and of itself is not a basis for traversing an obviousness rejection *per se*; however, this does not mean that the Examiner can arbitrarily select a disproportionate number of references to try and create a mosaic of Applicant's currently claimed process based on impermissible hindsight. In fact, the question to be asked - and answered - by the Examiner is whether one of ordinary skill in the art would have been motivated to modify the various seven cited references as suggested by the Examiner at the time of filing of Applicant's application, without the aid of Applicant's specification as a guide. In this regard, Applicant respectfully believes the rejections outlined in the pending Office Action fail to address this issue, and therefore should be withdrawn.

Nevertheless, as outlined in Applicant's previous response, the U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case

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of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Applicant is currently claiming propylene copolymer compositions comprising, in part, a propylene copolymer A) and a propylene copolymer B), wherein the resultant propylene copolymer composition further comprises a tensile E modulus ranging from about 400 MPa to about 800 MPa, and a molar mass distribution  $M_w/M_n$  ranging from 1.5 to 3.5. Additionally, the currently claimed propylene copolymer compositions are obtained by using a catalyst system comprising a metallocene compound, which results, in part, in the propylene copolymer compositions comprising a narrow molar mass distribution (i.e.,  $M_w/M_n$  ranging from 1.5 to 3.5).

Alternatively, U.S. Patent 6,586,528 (herein referred to as, "Delaite, et al.") discloses the polymer compositions therein are preferably obtained via Ziegler-Natta catalyst systems. In fact, Delaite, et al. discloses on page 4, lines 34-43,

Polymers (A) and (B) are preferably obtained by polymerization of propylene and, as the case may be, of ethylene by means of catalytic systems comprising a **solid based on titanium trichloride**, an alkylaluminum and

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optionally an electron donor. (Emphasis added)

Additionally, every working example in Delaite, et al. (i.e., Examples 1 to 3) are produced using Ziegler-Natta catalyst systems. See col. 6, lines 40-49. Therefore, since Ziegler-Natta catalyst systems are known to produce polymer compositions comprising broad molar mass distributions (i.e.,  $M_w/M_n$ ), Applicant respectfully believes Delaite, et al. clearly does not anticipate the currently claimed propylene copolymer compositions.

Moreover, as explained in Applicant's specification on page 1, lines 15-23,

It is known that multiphase propylene copolymers having a good impact toughness and a decreasing stiffness can be prepared by means of Ziegler-Natta catalyst systems in a multistage polymerization reaction. However, the incorporation of ethylene-propylene copolymers having a high proportion of ethylene into a polymer matrix makes the multiphase propylene copolymer turbid. Poor miscibility of the flexible phase with the polymer matrix leads to a separation of the phases and thus to turbidity and to poor transparency values of the heterogeneous copolymer. Furthermore, the ethylene-propylene rubber prepared by means of conventional Ziegler-Natta catalysts also has a very inhomogeneous composition.

Accordingly, Applicant's currently claimed propylene copolymer compositions, which are produced using a catalyst system comprising a metallocene compound, obviate the problems encountered by prior compositions produced using Ziegler-Natta catalyst systems, such as those outlined in Delaite, et al.

In particular, as outlined in Applicant's specification, compositions produced using Ziegler-Natta catalyst systems have

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increased turbidity between the polymer matrix and flexible polymer phase, which leads to poor transparency values in the resultant polymer. Additionally, the ethylene-propylene rubber phase produced by a Ziegler-Natta catalyst system is very inhomogeneous, and the resultant compositions would have a broad molar mass distribution. Alternatively, Applicant's currently claimed compositions overcome the deficiencies of compositions produced using Zeigler-Natta catalyst systems, including those of Delaite, et al., by producing compositions having better transparency values, as well as a better balance of physical properties, including tensile E modulus values ranging from about 400 MPa to about 800 MPa, and a narrow molar mass distribution (i.e., a  $M_w/M_n$  ranging from 1.5 to 3.5). As such, given the explicit disclosure of Delaite, et al., Applicant respectfully believes one of ordinary skill in the art would not have been motivated to modify Delaite, et al. in an attempt to arrive at Applicant's currently claimed propylene copolymer compositions, nor would one of ordinary skill in the art expected to arrive at Applicant's currently claimed propylene copolymer compositions comprising an unexpected balance of properties, including better transparency values (i.e., low haze values) and physical properties (i.e., tensile E modulus values ranging from 400 MPa to 800 MPa). However, this is the Examiner's initial burden to establish a *prima facie* case of obviousness. See MPEP §2142.

As for U.S. Patent 5,753,773 (herein referred to as,

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"Langhauser, et al."), with respect to Langhauser, et al., similarly to Delaite, et al. Applicant respectfully believes Langhauser, et al. fails to disclose, teach, or suggest Applicant's specifically claimed propylene copolymer compositions comprising, in part, a **propylene copolymer A)** comprising from 0.05 to 0.99% by weight of at least one C<sub>2</sub>-C<sub>10</sub> alpha-olefin, and a propylene copolymer B) comprising from about 7.01 to about 20.0% by weight of at least one C<sub>2</sub>-C<sub>10</sub> alpha-olefin, wherein the resultant propylene copolymer composition further comprises a **tensile E modulus ranging from about 400 MPa to about 800 MPa**, and a molar mass distribution M<sub>w</sub>/M<sub>n</sub> ranging from 1.5 to 3.5. In particular, Applicant respectfully believes Langhauser, et al. generally relates to propylene block copolymers comprising, preferably, a **propylene homopolymer** as polymer a), and a propylene copolymer as polymer b), wherein the propylene copolymer can have an extremely broad comonomer content range (i.e., 15% to 95% by weight of another C<sub>2</sub>-C<sub>10</sub> 1-alkene). See col. 1, lines 62-66 in Langhauser, et al. In fact, not only does Langhauser, et al. disclose polymer a) is preferably a **propylene homopolymer**, whereas Applicant is currently claimed a **propylene copolymer** comprising a specific comonomer content (i.e., 0.05 to 0.99% by weight), but Langhauser, et al. discloses **polymer b) can actually be a copolymer other than a propylene copolymer** (i.e., Langhauser, et al. discloses copolymer b) be can comprise 15 to 95% by weight of another C<sub>2</sub>-C<sub>10</sub> 1-alkene; thus, a copolymer comprising

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more than 50% by weight of another C<sub>2</sub>-C<sub>10</sub> 1-alkene would not be a propylene copolymer).

Alternatively, Applicant has unexpectedly found that when the currently claimed propylene copolymer compositions, comprising the specifically claimed copolymer A) and specifically claimed copolymer B), are produced using a catalyst system comprising a metallocene compound, the resultant compositions comprise an unexpectedly better balance of physical properties, including a tensile E modulus ranging from about 400 MPa to about 800 MPa, as well as better transparency properties. Applicant is aware Langhauser, et al. is silent with respect to the currently claimed properties; however, as evidence, Applicant directs the Examiner to U.S. Patent 7,342,078 (herein referred to as, "Schottek, et al.").

First and foremost, as outlined *supra*, Langhauser, et al. is directed towards compositions preferably comprising a **propylene homopolymer** as polymer a). See col. 1, lines 63-64, as well as Examples 1-3 in Langhauser, et al. Contrastingly, Applicant is currently claiming propylene copolymer compositions comprising a **propylene copolymer A)** comprising a specific comonomer content (i.e., 0.05 to 0.99% by weight) and a propylene copolymer B) comprising a specific comonomer content (i.e., about 7.01 to about 20.0% by weight), which unexpectedly comprise tensile E modulus values ranging from about 400 MPa to about 800 MPa, as well as better haze values. To evidence Applicant's unexpected better

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balance of properties, the Examiner is directed to Examples 98-102 in Schottek, et al. In particular, Examples 98-102 in Schottek, et al. comprise 71% to 80% by weight of a **propylene homopolymer** and 20% to 29% by weight of a **propylene/ethylene copolymer**, wherein both fractions are prepared via a catalyst system comprising a metallocene compound. See col. 64, line 50, through col. 67, line 45, including Tables 2-3 in Schottek, et al. As outlined in Table 3 in col. 67 in Schottek, et al., the resultant compositions that comprise a **propylene homopolymer** as component A) and a **propylene copolymer** as component B) comprise tensile E modulus values ranging from 1020 MPa to 1156 MPa, which is 127.5% to 289% higher than the values currently claimed by Applicant (i.e., 400 MPa to 800 MPa). As such, given the evidence supplied in Schottek, et al., Applicant respectfully believes the compositions of Langhauser, et al., which comprise a **propylene homopolymer** as polymer a) and a **propylene copolymer** as polymer b), would necessarily comprise higher tensile E modulus values, and would thus be materially different than those currently claimed.

In addition to differences in tensile E modulus values, the currently claimed compositions also have unexpectedly better transparency values. In particular, again as evidenced by Schottek, et al., compositions that comprise a **propylene homopolymer** as component A) and a **propylene copolymer** as component B), versus Applicant's currently and specifically claimed propylene copolymers



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as components A) and B), comprise haze values ranging from 8% to 20% on films, according to ASTM D-1003. See Table 3 in Schottek, et al. Alternatively, Applicant's currently claimed films comprise haze values less than about 5%, and in particular, Example 1 in Applicant's specification comprises a haze value of 1.21% according to ASTM D-1003. See Table 4 in Applicant's specification, as well as currently pending claim 46. Accordingly, since the compositions of Schottek, et al. mirror those disclosed in Langhauser, et al., Applicant respectfully believes the haze values of the currently claimed compositions would clearly be much lower than the haze values of the compositions disclosed in Langhauser, et al.

As for U.S. Patent Application Publication 2002/0037979 (herein referred to as, "Job, et al."); U.S. Patent 5,103,030 (herein referred to as, "Rohrmann, et al."); U.S. Patent Application Publication 2002/0009563 (herein referred to as, "Kawamura, et al."); U.S. Patent Application Publication 2004/0033349 (herein referred to as, "Henderson, et al."); and U.S. Patent 6,699,543 (herein referred to as, "Agarwal"), not only does Applicant respectfully believes the Examiner has not explained why, absent Applicant's specification, one would have attempted to modify each of the aforementioned documents with Delaite, et al. and Langhauser, et al., but Applicant also believes none of the aforementioned documents remedy the deficiencies of Delaite, et al. and Langhauser, et al.

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In light of the above, as well as the arguments provided throughout the rest of this response, Applicant respectfully believes claims 71-111 are patentably distinct over Delaite, et al.; Langhauser, et al.; Job, et al.; Rohrmann, et al.; Kawamura, et al.; Henderson, et al.; and Agarwal. As such, Applicant respectfully requests the Examiner to withdraw the current rejections.

## 2. Response to Examiner's Response to Arguments

With respect to Delaite, et al., the Examiner states on page 13, paragraph 37, "Delaite et al clearly states that the propylene composition, 'can be prepared in presence of any catalytic system known to be productive and stereospecific' (col. 4, lines 27-29)." However, the actual disclosure of Delaite, et al. states,

Polymers (A) and (B) can be prepared in the presence of any catalytic system known to be sufficiently productive and stereospecific, permitting the propylene to be polymerized in isotactic form and capable of incorporating the required quantities of ethylene in the polymer. Such catalytic systems as well as the general conditions for synthesis of these polymers are well known to those skilled in the art.

Polymers (A) and (B) are preferably obtained by polymerization of propylene and, as the case may be, of ethylene by means of **catalytic systems comprising a solid based on titanium trichloride**, an alkylaluminum and optionally an electron donor. Particularly preferable catalytic systems of this type are described in European Patent Applications 0261727 and 0334411 and in U.S. Pat. No. 4,210,729 and 5,204,305 (Solvay Polyolefins Europe, Belgium), the entire contents of each of which are hereby incorporated by reference. **These catalytic systems permit particularly statistical incorporation of ethylene and lead to the production of polymers having the form of**

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**powder with excellent morphology** (narrow particle size distribution and regular particles of spheroidal form).  
(Emphasis added)

Accordingly, Delaite, et al. discloses that the catalytic system used needs to be "sufficiently" productive and stereospecific with Zeigler-Natta catalyst systems disclosed as being preferred, as well as being the only catalyst systems exemplified within the specification of Delaite, et al. In fact, metallocene catalysts were well-known at the time of filing of Delaite, yet, the specification fails to make any mention or suggestion of using such a catalyst system for producing the compositions therein. See Applicant's discussion regarding Delaite, et al. *supra*. Therefore, Applicant respectfully believes Delaite, et al. would clearly lead one of ordinary skill in the art to use Zeigler-Natta catalyst systems for producing the compositions therein since, after all, this is what Delaite, et al. discloses.

As for Langhauser, et al., the Examiner acknowledges that the relative proportions of the ethylene comonomer in the copolymers are very broad, and that the properties of the final composition "are significantly dependent on the relative proportion of the ethylene comonomers within the propylene copolymers". See page 14, paragraph 39 of the pending Office Action. Accordingly, given the broad disclosure of Langhauser, et al., as well as the acknowledgement by the Examiner that the final properties of the compositions can vary greatly depending on the amount of ethylene comonomer in the

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propylene copolymer, not only does Applicant believe that Langhauser, et al. fails to disclose, teach, or suggest to one of ordinary skill in the art how to produce Applicant's currently claimed compositions having a unique blend of properties, but also given Applicant's unexpected results discussed *supra*, Applicant believes the currently claimed compositions and processes are patentably distinct from Delaite, et al. and Langhauser, et al., as well as the other documents cited.

#### CONCLUSION

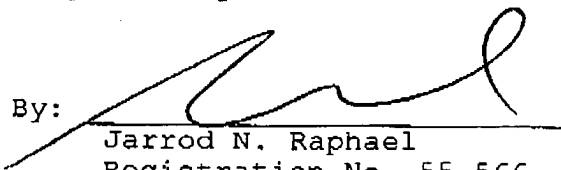
Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all pending rejections, and allow pending claims 71-111. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

In order to advance prosecution on the above-identified application, the Examiner is welcomed to telephone the undersigned practitioner if she has any questions or comments.

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Respectfully submitted,

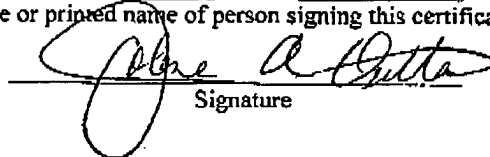
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